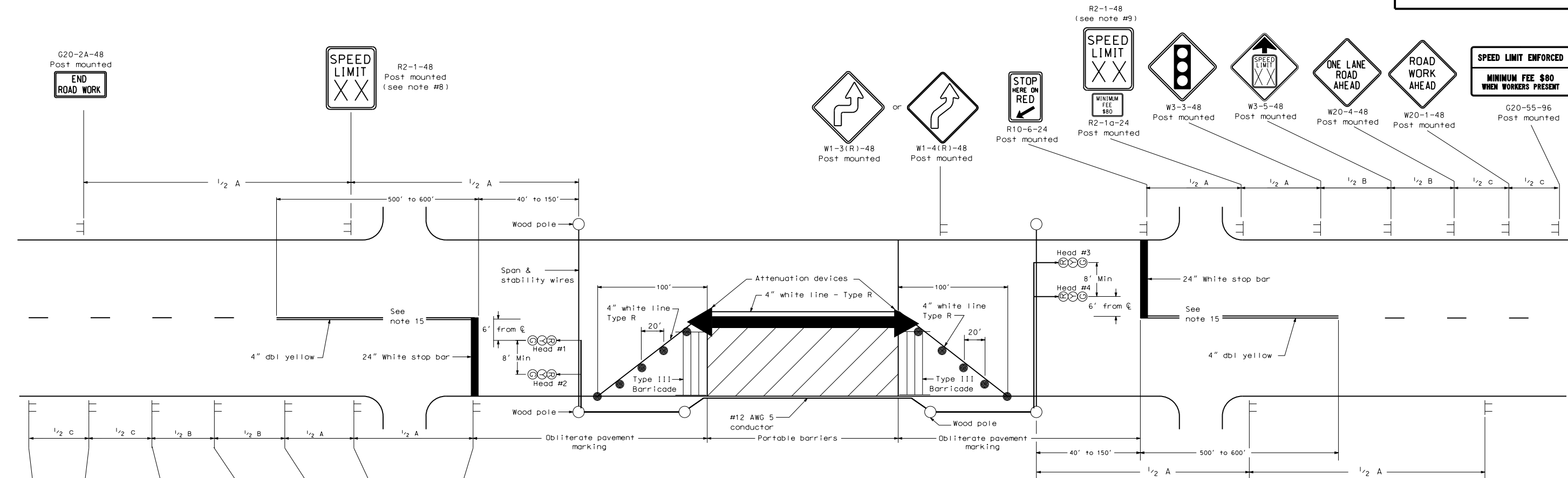


TYPICAL CONSTRUCTION SIGNAL LAYOUT

D-704-16



Notes

1. Conductor is to be overhead span between poles except on bridge where it is to be attached and supported by the bridge structure in such a way as not to interfere with bridge construction. Conductor is shown attached to side of bridge. It may be installed on either side of the bridge as determined by field personnel.
2. The controller may be located on any of the wood poles in the cable run between the signal heads for through traffic movements.
3. The timing schedule is suggested trial setting. Frequent checks of signals in operation shall be made to obtain the most efficient timing schedule.
4. The wood poles shall be placed a minimum of 16 feet from the edge of the driving lane. The wood poles shall be of sufficient length to provide a minimum of 16 to 19 feet clearance from the center line of the roadway to the bottom of traffic signal heads suspended over the roadway.
5. Traffic signal heads shall have 12 inch red, yellow and green lenses. The signal heads shall have 5 inch louvered backplates.
6. For interim traffic construction detail see standard drawing D-772-6.
7. Delineator drums used for tapering traffic shall be spaced at 20 ft. center to center.
8. The speed limit shall be re-established. The exact speed limit shall be determined in the field, dependent on location and conditions.
9. The reduced speed limit shall be determined dependent on the in-place speed limit before construction. The speed limit reduction should not exceed 10 mph below the existing speed limit, unless the design speed of the work zone feature has been reduced below the 10 mph. In this case, the speed limit reduction shall not exceed 30 MPH. Where speed limits are to be reduced more than 30 MPH, a second speed limit sign shall be installed with the desired speed reduction but shall not exceed 30 MPH. The second speed limit sign shall be placed at 1/2 B.
10. When warning signs are used in urban areas and the signs are not portable, flags shall be installed. The flags shall be 24 inches square, mounted perpendicular to the edges of the diamond sign, and at such a distance above the edge so that when the flag is limp it will not touch the sign. Rural areas will not require flags.
11. Obliterated or covered pavement marking shall be paid for as Obliteration of Pavement Marking. The covering shall be as specified in the plans.
12. Existing speed limit signs within a reduced speed zone shall be covered.
13. Barricade shown to be placed on roadway shall be on a moveable assembly. Sign to be mounted on barricades shall be mounted with the sign bottom on the top of the top barricade bar. Sign shown to be placed on the roadway shall be placed on skid mounted assemblies.
14. The contractor has the option of using portable sign supports in lieu of post mounted sign as shown on the standard drawings as specified in section 704.03 C.
15. Double yellow centerline shall continue thru private drives.
16. G20-55-96 is not required if this standard is part of other traffic control layouts, or the work is less than 15 days.

SPEED LIMIT ENFORCED
MINIMUM FEE \$80
WHEN WORKERS PRESENT

KEY	
	Work Area
	Type III Barricade
	Sign
	Delineator Drum

ADVANCE WARNING SIGN SPACING			
Road Type	Distance Between Signs		
	A	B	C
Urban - Low Speed (30 mph or less)	150	150	150
Urban - Low Speed (over 30 to 40 mph)	280	280	280
Urban - High Speed (over 40 mph to 50 mph)	360	360	360
Rural - High Speed (over 50 mph to 65 mph)	720	720	720
Urban Expressway and Freeway (55 mph to 60 mph)	850	1350	2200
Rural Expressway and Freeway (70 mph to 75 mph)	1000	1500	2640
Interstate/4-Lane Divided (Maintenance and Surveying)	750	1000	1500

SUGGESTED TIMING AND SIGNAL SEQUENCE						
Heads 1 & 2	Green	Yellow	Red			
Heads 3 & 4	Red		Green	Yellow	Red	
Time	18.0	4.5	22.5	18.0	4.5	22.5
Cycle = 90 seconds						
Percent of Cycle	20	5	25	20	5	25

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
03-01-88	
REVISIONS	
DATE	CHANGE
05-01-00	Note 6
01-05-01	Revised note 7
07-19-02	Reversed End Road Work & speed limit signs
07-25-03	Revised R2-1a and W20-1
04-01-04	Rev. fee sign & Warning sign spacing, add note 16
	Revised note 9
12-01-04	PE Stamp added
02-16-05	Added W1-3(R)-48
06-29-05	Replaced R2-5a with W3-5, Rev. Adv. Warning Table, Rev. Note 9

This document was originally issued and sealed by
MARK S. GAYDOS
Registration Number
PE- 4518 ,
on **06/29/05** and the original document is stored at the
North Dakota Department of Transportation